

Application No. 09/770,340  
October 27, 2003  
Reply to Office Action of May 5, 2003

**AMENDMENTS TO THE CLAIMS:**

Claims 1 - 21 (Cancelled).

Claim 22 (Withdrawn). A method for making a low density paperboard material suitable for use in producing an insulated container such as a cup comprising providing a papermaking furnish containing cellulosic fibers and from about 0.25 to about 10 % by weight dry basis expandable microspheres, forming a paperboard web from the papermaking furnish, drying the web, and calendaring the web to a caliper of from about 24 to about 35 mils and a density ranging from about 200 to about 220 lb/3MSF.

Claim 23 (Withdrawn). The method of claim 22 wherein the density of the web is at least about 6.5 lb/3MSF/mil and the caliper of the web is at least about 28 mil.

Claim 24 (Withdrawn). The method of claim 23 wherein the internal bond of the web is at least about  $100 \times 10^{-3}$  ft-lbf.

Claim 25 (Withdrawn). The method of claim 22 wherein the internal bond of the web is at least about  $100 \times 10^{-3}$  ft-lbf.

Claim 26 (Withdrawn). The method of claim 22 wherein the internal bond of the web is at least about  $80 \times 10^{-3}$  ft-lbf.

Claim 27 (Withdrawn). The method of claim 22 further comprising applying a barrier coating on at least one of the surfaces of the calendered web.

Claim 28 (Withdrawn). The method of claim 27 wherein the barrier coating is present only on a surface of the web to be placed interiorly of a container.

Claim 29 (Withdrawn). The method of claim 27 wherein the barrier coating has an average thickness of from about 0.5 to about 3.5 mil.

Claim 30 (Withdrawn). The method of claim 27 wherein the barrier coating comprises a coating material selected from the group consisting of polyethylene, EVOH, and polyethylene terephthalate having an average thickness ranging from about 0.5 to about 3.5 mil.

Claim 31 (Withdrawn). The method of claim 30 wherein the barrier coating comprises a low density polyethylene having an average thickness of from about 1 to about 3 mil.

Claim 32 (Withdrawn). The method of claim 27 wherein a barrier coating is present on both surfaces of the web.

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Claim 33 (Withdrawn). The method of claim 22 wherein the web exhibits a Sheffield smoothness of at least about 300 SU.

Claim 34 (Withdrawn). The method of claim 22 wherein the web is calendered so as to exhibit a Sheffield smoothness of at least about 300 SU and the method further comprises printing directly on the surface.

Claim 35 (Withdrawn). The method of claim 22 further comprising printing directly on a surface of the web to be positioned on the exterior of the container and wherein the surface that carries the printing exhibits a Sheffield smoothness of at least about 300 SU and a PPS10 smoothness of about 6.5 or less.

Claim 36 (Withdrawn). The method of claim 22 wherein the furnish comprises from about 5 to about 7 wt.% dry basis expandable microspheres.

Claim 37 (Currently Amended). A method for making an insulated paperboard-based cup having a sidewall and a bottom which comprises providing a paperboard material comprising a paperboard web including from about 0.25 to about 10 % by weight dry basis of expanded polymeric microspheres, a caliper of from about 24 to about 35 mils, an apparent density of from about 6.5 to about 10 lb/3MSF/mil, an internal bond of at least about ~~80 x 10<sup>-3</sup> ft-lbf~~ 80 x 10<sup>-3</sup> ft-lbf, and a Sheffield smoothness of at least about 300 SU, and a barrier coating on at least one surface of the web having a thickness of from about 0.5 to about 3.5 mil, forming at least the sidewall of the cup from the web with a surface of the web containing the barrier coating facing interiorly of the cup and the other surface of the web facing exteriorly of the cup, and sealably joining the sidewall to the bottom.

Claim 38 (Original). The method of claim 37 wherein the web has barrier coatings on both of its surfaces facing interiorly and exteriorly of the cup.

Claim 39 (Original). The method of claim 38, wherein the web has printing on the barrier coating on the surface positioned exteriorly of the cup.

Claim 40 (Original). The method of claim 37, wherein the web has a barrier coating only on its surface facing interiorly of the cup and the web has printing on its surface facing exteriorly of the cup.

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### **REMARKS**

Claims 1 - 40 were originally filed in the case with Claims 37 - 40 having been examined on the merits and Claims 1 - 36 currently subject to restriction and withdrawn. Divisional applications have been filed directed to Claims 1 - 21 and, accordingly, these claims are now being cancelled from the present application. Claims 22 - 36 remain pending but are withdrawn from examination.

In the Office Action, independent Claim 37 and dependent Claims 38 - 40 were rejected as allegedly being obvious over U.S. Patent No. 6,379,497 to Sandstrom et al. Each of the foregoing rejections is respectfully traversed and favorable reconsideration is requested in view of the above amendment and following remarks.

The Examiner granted the Applicants and their attorneys an interview to discuss this case on October 16, 2003. The Applicants wish to first express their gratitude to the Examiner for the courtesies extended at this interview.

During the interview, Applicants explained that the claims under examination are directed to a method for the formation of a cup using a particular paperboard material. The claims require that this paperboard material have certain characteristics, namely, that it (1) include expanded polymeric microspheres in the range from approximately 0.25 % to approximately 10 % by weight dry basis, (2) have a caliper in the range from approximately 24 to approximately 35 mils, (3) have an apparent density in the range from approximately 6.5 to approximately 10 lb/3MSF/mil, (4) have an internal bond strength of at least approximately  $80 \times 10^{-3}$  ft-lbf, and (5) have a Sheffield smoothness of at least approximately 300 smoothness units (SU). Applicants explained that paperboards having these five characteristics have been found to be uniquely well-suited for conversion into paperboard cups having good convertibility, printability, and insulation value. Applicants further explained that the cited Sandstrom et al. reference failed to disclose or suggest a single paperboard having this unique combination of characteristics for use in forming cups, and that there was no suggestion whatsoever in Sandstrom et al. to provide a paperboard

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exhibiting this combination of characteristics.

At the conclusion of the interview, the Examiner acknowledged that the cited reference failed to disclose or suggest either a paperboard having the recited limitations, or a method for making a cup using such a paperboard.


The Examiner also requested during the interview that Applicants amend Claim 37 to correct a clerical error in which the "negative sign" of an exponent recited in the claim was inadvertently not placed in superscript font. Applicant have herein made the requested amendment. Since the amendment is simply clerical, the scope of the claim of course is not altered.

In light of the foregoing, Applicants urge the Examiner to withdraw the rejections and to issue a notice of allowance at the earliest possible convenience.

In the event this response is not timely filed, Applicants hereby petition for the appropriate extension of time and request that the fee for the extension along with any other fees which may be due with respect to this paper be charged to our **Deposit Account No. 12-2355**.

Respectfully submitted,

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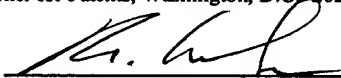
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